



DESIGN SUMMARY

SYRACUSE STORMWATER CONVEYANCE SYSTEM

*Indiana Department of Natural Resources
Lake and River Enhancement Program*



TOWN OF SYRACUSE

JULY 2004



DLZ Project No.0463-0255-90

DESIGN SUMMARY

SYRACUSE STORMWATER CONVEYANCE SYSTEM SYRACUSE, INDIANA

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DESIGN SUMMARY

SYRACUSE STORMWATER CONVEYANCE SYSTEM SYRACUSE, INDIANA

EXECUTIVE SUMMARY

In January 2004, the Town of Syracuse entered into a design services agreement with DLZ Indiana, LLC to complete a Lake and River Enhancement program design project for a stormwater conveyance system in the Town of Syracuse, Indiana. The project focuses on two areas within the town; both on the northwest end of Syracuse Lake. The first area is a residential development known as Potawatomi Heights Subdivision while the second focuses on the area adjacent to and immediately around the newly constructed Syracuse Community Center. Both areas currently have existing stormwater drainage infrastructure that is undersized or inadequate to effectively manage and treat stormwater runoff.

The completed design enhances and extends the existing stormwater conveyance system in capture and conveyance capacity as well as adds a water quality treatment component. The design includes replacing existing undersized pipes, adding new lengths of larger diameter pipe to more immediately capture the design storm, and installing two manufactured water quality treatment Best Management Practices (BMPs) to capture and treat the runoff before discharging along vegetated swales into Syracuse Lake.

The system is designed to reduce lowland and roadway flooding in the impacted areas for the design storm which is the 10 year, 1 hour duration storm and reduce pollutant loading to the Lake by capturing approximately 80 percent of the total suspended solids and approximately 100 percent of the floatable materials including petroleum based products.

The project requires local plan approval and may require a public freshwater lake permit from the Indiana Department of Natural Resources. The project also requires construction and maintenance easements from those landowners directly impacted by the construction of the project.

The construction project is planned for the late summer of 2004 pending all approvals are made and sufficient funding is available.

DESIGN SUMMARY
SYRACUSE STORMWATER CONVEYANCE SYSTEM
SYRACUSE, INDIANA

I. PROJECT DESCRIPTION AND PURPOSE

The proposed project involves the development of a stormwater conveyance system within the Town of Syracuse, Indiana. The Town of Syracuse, located in Kosciusko County, Indiana, has a full time resident population of approximately 3,000. The land use in the Town of Syracuse is predominantly residential with a commercial development along S.R. 13. The Town of Syracuse resides along the western shore of Syracuse Lake and directly impacts this freshwater lake resource. The Town encompasses approximately 2.5 square miles.

The Syracuse/Wawasee community is home to the largest natural freshwater lake in Indiana, Lake Wawasee, as well as Syracuse Lake. Syracuse Lake is located in the northeast corner of Kosciusko County in north central Indiana between the cities of South Bend and Fort Wayne. The lake covers a surface area of 414 acres and reaches a maximum depth of approximately 30 feet. Syracuse Lake has a drainage area of approximately 37 square miles.

The project area affects a total watershed area of approximately 60 acres within the Town of Syracuse while the total disturbed area should be less than 2 acres. The approximate project area is bounded on the north by County Road 1400, on the west by S.R. 13, on the east by Shore Lane, and on the south by Syracuse Lake. More specifically, the project includes the Potawatomi Heights subdivision and the Syracuse Community Center area between S.R. 13 and Long Drive. Refer to Appendix A for photographs of the project area.

The project, funded by a Lake and River Enhancement Grant and sponsored by the Town of Syracuse, includes identifying areas of drainage concern in the Potawatomi Heights Subdivision and around the Syracuse Community Center, as well as developing a stormwater conveyance system that will enhance the stormwater delivery to Syracuse Lake and reduce the particulate loading of the stormwater discharge to Syracuse Lake through the use of manufactured water quality treatment Best Management Practices (BMPs).

The specific project purpose is to reduce lowland flooding concerns and effectively deliver stormwater runoff to Syracuse Lake by means of an enhanced stormwater system providing water quality treatment.

II. DESIGN CONSIDERATIONS

A. Existing Conditions

The proposed project focuses on two areas within the Town. The first site (Potawatomi Heights) is bounded by Syracuse Lake to the south, Long Drive to the west, Nokomis Drive to the north and Iroquois Drive to the east. The area consists of approximately ½ acre residential lots.

The existing runoff in this first area generally flows toward the center of subdivision then into the inlets along the edge of pavement. The existing storm sewer infrastructure then conveys the runoff south through yards and along Hiawatha Drive, outletting into Syracuse Lake. The drainage basin for this system is approximately 32 acres. The existing system consists of 10" and 12" pipes, which are currently undersized to handle the stormwater runoff causing lowland flooding and provides no measure of water quality treatment.

At the second project area, the Syracuse Community Center site focuses on drainage at and surrounding the recently developed community center. The area consists of paved parking areas, residential lots and commercial development along S.R. 13. The drainage basin for this system is approximately 27 acres.

In this project area a portion of the existing runoff outlets from an existing detention pond west of and through S.R. 13, by means of an existing road culvert, and into a low lying area adjacent to the community center. Runoff from the community center flows into an existing and somewhat undersized detention area on the community center site outletting through existing ditches in front of the center, and into Syracuse Lake across Long Drive. Runoff in the area is generally conveyed through roadside ditches and overland flow.

As with the previous site, the existing stormwater delivery system does not effectively manage existing stormwater runoff resulting in lowland flooding while failing to provide measured stormwater quality treatment.

B. Storm System Design

The proposed site development will enhance the existing stormwater infrastructure in the Potawatomi Heights Subdivision and around the community center. In the subdivision, a new 12" pipe will be constructed along Iroquois Drive and Wawonaissa Drive where it will connect to the existing system. An additional inlet and perforated pipe will connect to the existing system along lot lines between Wawonaissa Drive and Miami Drive. A short reach of pipe and an additional inlet are proposed along Hiawatha Drive to gather runoff from a problem drainage area. At Northshore Drive, existing inlets and pipes at the south end of the system will be replaced with 24" pipes and sumped or sunken inlets to collect runoff. A new 19" x 30" elliptical pipe will outlet to Syracuse Lake. An

offline BMP will be installed along this reach to treat stormwater runoff before entering the Lake. Due to elevation restrictions, an earthen berm will be constructed over the pipe in order for the system to extend to the edge of the lake. A small area of glacial stone will be mechanically forced into the ground around the outlet as energy dissipation. A prairie mix of vegetation will be placed on the proposed berm in order to create a naturalized landscape feature.

At the Syracuse Community Center area, a new inlet and pipe will extend from the existing culvert pipe outlet along S.R. 13 south and east along the north side of the building and include a new inlet constructed at the existing detention area behind the community center. The pipe will extend to and along Long Drive outletting into Syracuse Lake along the south boundary of Lake Side Park. The existing roadside ditches east of the community center along Long Drive will be enclosed with 27-inch pipe. The new pipe system will also be extended north to an existing inlet along Long Drive. An offline BMP will be installed along the lower reach to treat stormwater runoff before entering the Lake. A berm, as previously mentioned will be constructed in this project area as well.

As outlined in the Syracuse Standards for the Design and Construction of Public Works Projects, storm sewer design shall utilize the Rational Method. Other methods may be considered on a case-by-case basis. Per approval from the Syracuse Department of Public Works, runoff estimates for the project were determined using the SCS Curve Number Methodology and the Huff 2nd Quartile, rainfall distribution as described in the Department of Natural Resources Division of Water Rainfall Frequency for Indiana.

Soil Type(s) – The Kosciusko County Geographic Information System (GIS) was reviewed to determine the soil types present on the site. The survey indicates the site contains Miami Loam 2-6 percent slopes (MIB), Miami Loam 6-12 percent slopes (MIC), Crosier Loam 1-4 percent slopes (CrB), and Barry Loam (Bc). The MIB, MIC, and CrB are “B” soils while the Bc is a group C soil.

Curve Numbers – The curve numbers (CN) were determined assuming 90% of the hydrological soil class B and 10% soil class C. The existing site contains grass cover, residential lots, meadow areas, open ditch areas, as well as paved areas. Therefore, the runoff curve numbers for the various basins ranged from 59 to 98.

Times-of-Concentration – The existing time-of-concentration was determined using the TR-55 methodology. The flow path was delineated on the existing site survey.

Refer to the Drainage Report for specific design Criteria (i.e. runoff estimates, soil types, etc.)

C. BMP Design

Hydrodynamic Vortex Separators are specifically designed to provide high removal efficiencies of settleable solids and their associated pollutants, oil, and floatables over a wide range of flow rates. Internal components minimize turbulence and headlosses, enhance separation and prevent the resuspension of previously stored pollutants. The combination of high removal efficiencies and inherent low headlosses that allow for a small footprint render the units a compact and economical solution for non-point source pollution.

The removal efficiency of any flow-through sedimentation device depends on the flow rate through the device and the settling velocity of the influent solids. The settling velocity is a function of particle size and particle density, combined with the efficiency of the sedimentation device.

To size such a stormwater treatment device, it is necessary to determine the design flow. Flow-through treatment systems are designed to treat the “first-flush” associated with impervious surfaces in urbanized areas. The “first-flush” can be defined as that “first” portion of runoff that has the energy and volume to entrain and “flush” the once resident sediments and associated pollutants into and through the storm sewer to the treatment device.

For purposes of this design the “first-flush” flow rate was determined by analyzing the 10-year, 1 hour storm; the design storm. The analyses determined a treatment flow rate of approximately 3.37 cfs (cubic feet per second) at the Potawatomi site and approximately 2.62 cfs at the community center site. The treatment devices are sized with respect to the design / treatment flow rate to capture approximately 80% of the TSS with specific gravities of 2.65 down to and including 150-micron particles. A particle size of 150-microns is smaller than the majority of sand particles. The devices will also capture all trash and oils.

Refer to the BMP design summary for specific design criteria and results.

III. DESIGN SPECIFICATIONS

The Town of Syracuse holds its own manual of design details and standards for Public Works projects. While these standards, which were developed in 1996, are generally used for such projects it is not uncommon for the Town of Syracuse to approve the use of other widely accepted standards and specifications.

This design utilizes both the Syracuse “Standards for the Design and Construction of Public Works Project” and The Indiana Department of Transportation 1999 "Standard Specifications" and the revisions thereto, contained in the latest edition of the "Supplemental Specifications to the 1999 Standard Specifications". The above specifications shall be used in conjunction with the plans, Contract Forms, Prevailing

Specifications, Special Provisions, Standard Sheets and any addenda, which may be issued for this project.

Refer to the Project Manual for the bidding requirements, contract forms, prevailing specifications and special provisions. Any item not specifically covered in the Project Manual shall conform to the Indiana Department of Transportation "Standard Specification."

IV. PROJECT PERMITS

The following permit applications shall be submitted by DLZ on behalf of the Town of Syracuse:

- A. Indiana Department of Natural Resources
 - 1. Lake Preservation Act (IC 14-26-2)

See Appendix B for a copy of the permit application.

V. PROJECT COST SUMMARY

The probable construction cost to complete the stormwater conveyance system, as outlined above in Section 2, is estimated to be \$234,626. A detailed probable construction cost estimate is provided in Appendix C.

VI. CONSTRUCTION SCHEDULE

The following tasks will be completed prior to and during construction by the dates shown:

<u>Task</u>	<u>Date</u>
1. Complete design	Summer 2004
2. Obtain permits	Summer 2004*
3. Bid construction	Summer 2004*
4. Complete construction	Late Summer 2004*
5. Site restoration complete	Spring 2005*
*Estimated date. Actual dates to be determined by the Town of Syracuse	

VII. MAINTENANCE ACTIVITIES

The following maintenance activities shall be performed by the Town of Syracuse or a qualified representative:

<u>Task</u>	<u>Frequency</u>
1. BMP Maintenance	Refer to the BMP O&M Manual
2. Inspect and clean inlets	After significant storm events, or as needed.
3. Storm Sewer Infrastructure Inspection	Annually.

VIII. PROJECT PROGRESS REPORTING

Project progress reports have been generated on a monthly basis in order to track the progress of the various project tasks. See Appendix D for the monthly reports.

IX. PROJECT CONCLUSIONS

The overall project purpose is to design an improved stormwater system that will more effectively capture and treat stormwater runoff for the watershed before discharging into Syracuse Lake.

The proposed design incorporates new infrastructure as well as improvements to existing infrastructure to efficiently capture the stormwater runoff. The water quality BMPs provide a treatment system, which will reduce or eliminate particulate loading of stormwater discharge to the lake. The proposed system will enhance the water quality of the lake and reduce ponding of water throughout the project area.

APPENDIX A

Site Photographs

PHOTOGRAPHS



Photograph No. 1

Existing pipe at the intersection of Northshore and Hiawatha



Photograph No. 2

Existing pipe at the intersection of Northshore and Hiawatha

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PHOTOGRAPHS



Photograph No. 3

Existing pipe at the intersection of Northshore and Hiawatha



Photograph No. 4

Outlet to Syracuse Lake at Northshore Drive

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APPENDIX B

Project Permits

Division of Water
Indiana Department of Natural Resources
Lake Preservation Act Permit Application

PERMIT APPLICATION

State Form 42946 (R5/6-03)
Approved by the State Board of Accounts, 2003

Mail To: Division of Water
Department of Natural Resources
402 West Washington Street, Room W264
Indianapolis, Indiana 46204-2641
Telephone Number: (317) 232-4160
Fax Number: (317) 233-4579
Toll Free: 1-877-928-3755

AGENCY USE ONLY

Application # _____	Fee Submitted \$ _____	Check # _____	Receipt # _____
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Based on the "INSTRUCTIONS", I am submitting this application to perform work under:

- ☐ IC 14-26-2 Lake Preservation Act (\$100)
- ☐ IC 14-26-5 Lowering of the Ten Acre Lake Act (\$25)
- ☐ IC 14-29-1 Navigable Waterways Act (\$0)
- ☐ IC 14-29-3 Sand and Gravel Permits Act (\$50)
- ☐ IC 14-29-4 Construction of Channels Act (\$100)
- IC 14-28-1 Flood Control Act Projects – select one
 - ☐ All non-residential construction (\$200)
 - ☐ Residential reconstruction in a floodway, other than the Ohio River floodway (\$50)
 - ☐ Residential construction, or reconstruction, in the Ohio River floodway (\$10)

PLEASE TYPE OR PRINT

1. APPLICANT INFORMATION

Name of Applicant : **Town of Syracuse** Name of Contact Person : **Brian Redshaw**

Mailing Address : **310 N Huntington Street**
(Street, P.O. Box or Rural Route)
Syracuse **IN** **46567**
City State Zip Code

Daytime Telephone Number: **(574) 457-3348** Fax Number: **(574) 457-2693**

2. AGENT INFORMATION

Name of Authorized Agent: **DLZ Indiana, LLC** Name of Contact Person: **Michael E. Massonne**

Mailing Address: **36 S Pennsylvania Street, Suite 360**
(Street, P.O. Box or Rural Route)
Indianapolis **IN** **46204**
City State Zip Code

Daytime Telephone Number: **(317) 633-4120** Fax Number: **(317) 633-4177**

3. PROPERTY OWNER INFORMATION

Name of Property Owner: **Town of Syracuse (same as above)** Name of Contact Person:

Mailing Address:
(Street, P.O. Box or Rural Route)
City State Zip Code

Daytime Telephone Number:

Relationship of applicant to property: ☐ Owner ☐ Purchaser ☐ Lessee Other:

4. AFFIRMATION OF PERSONAL SERVICE, 1ST CLASS MAIL SERVICE, OR CERTIFIED MAIL SERVICE

I have provided public notice to the listed property owners in conformance with the provisions of IC 14-11-4 and 312 IAC 2-3-3 through the method indicated below.

(Check the appropriate Box - Please make copies of this blank page if additional pages are required)

<p>PAUL W ROMANETZ & JUDY K HARVEY Property Owner (if not applicant or adjacent landowner)</p> <p>902 N LONG DR Address</p> <p>SYRACUSE IN 46567 City State Zip Code</p>	<p><input type="checkbox"/> Personal Service was provided on : _____ (date)</p> <p><input type="checkbox"/> 1st Class Mail Service was provided on: _____(date) I affirm that 21 days have passed without the mailing returned as undelivered or undeliverable. PS Form 3817 is attached as proof of mailing.</p> <p><input type="checkbox"/> Certified Mail service was provided on: _____(date) PS Form 3811 (green card) is attached as proof of mailing.</p>
<p>DENNIS E & JANET S SPEARMAN Adjacent Landowner:</p> <p>1101 N LONG DR Address</p> <p>SYRACUSE IN 46567 City State Zip Code</p>	<p><input type="checkbox"/> Personal Service was provided on : _____ (date)</p> <p><input type="checkbox"/> 1st Class Mail Service was provided on: _____(date) I affirm that 21 days have passed without the mailing returned as undelivered or undeliverable. PS Form 3817 is attached as proof of mailing.</p> <p><input type="checkbox"/> Certified Mail service was provided on: _____(date) PS Form 3811 (green card) is attached as proof of mailing.</p>
<p>JERRY D & CHARLOTTE E BLOSSER Adjacent Landowner:</p> <p>1100 N LONG DR Address</p> <p>SYRACUSE IN 46567 City State Zip Code</p>	<p><input type="checkbox"/> Personal Service was provided on : _____ (date)</p> <p><input type="checkbox"/> 1st Class Mail Service was provided on: _____(date) I affirm that 21 days have passed without the mailing returned as undelivered or undeliverable. PS Form 3817 is attached as proof of mailing.</p> <p><input type="checkbox"/> Certified Mail service was provided on: _____(date) PS Form 3811 (green card) is attached as proof of mailing.</p>
<p>SCOTT B MOORE Adjacent Landowner:</p> <p>502 E NORTSHORE DR Address</p> <p>SYRACUSE IN 46567 City State Zip Code</p>	<p><input type="checkbox"/> Personal Service was provided on : _____ (date)</p> <p><input type="checkbox"/> 1st Class Mail Service was provided on: _____(date) I affirm that 21 days have passed without the mailing returned as undelivered or undeliverable. PS Form 3817 is attached as proof of mailing.</p> <p><input type="checkbox"/> Certified Mail service was provided on: _____(date) PS Form 3811 (green card) is attached as proof of mailing.</p>
<p>LARRY K COPLEN & MARTA G HOPKINS Adjacent Landowner:</p> <p>601 N SHORE D Address</p> <p>SYRACUSE IN 46567 City State Zip Code</p>	<p><input type="checkbox"/> Personal Service was provided on : _____ (date)</p> <p><input type="checkbox"/> 1st Class Mail Service was provided on: _____(date) I affirm that 21 days have passed without the mailing returned as undelivered or undeliverable. PS Form 3817 is attached as proof of mailing.</p> <p><input type="checkbox"/> Certified Mail service was provided on: _____(date) PS Form 3811 (green card) is attached as proof of mailing.</p>

5.	<u>PROJECT DESCRIPTION</u>
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5.1 Description Narrative: (See Application Information Packet)
The Town of Syracuse contracted DLZ Indiana, LLC to complete a design project for a stormwater conveyance
system in the Town of Syracuse, Indiana. The project focuses on 2 area within the Town, and has 2 discharge points to Syracuse
Lake. The proposed discharge points are within 200 yards of each other. The proposed project focuses on
enhancements to the existing conveyance system as well as additional infrastructure.
The existing discharge points to the lake will be abandoned. The new discharge locations will be at Lakeview Park and 609
Northshore Drive. Manufactured BMPs will also be installed to treat the runoff before entering the lake.

6.	<u>PROJECT LOCATION</u>
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6-1 Location Narrative: (See Application Information Packet)
Stream/Lake Name: Syracuse Lake
The proposed outlets to the lake are located at the southeast corner of Lakeview Park and 609
Northshore Drive.
6-2 Driving Directions: (See Application Information Packet)
Beginning at 310 N Huntington Street (Town Hall). Start out going Northwest on Huntington Street for
0.2 miles. Turn right onto E Main Street for 0.1 miles. Turn left onto N Long Drive.
6-3 Special Information: (See Application Information Packet)
None
6-4 Project Location Map: (See Application Information Packet) See attached Map
6-5 Project Site Map: (See Application Information Packet) See attached Map

7.	<u>DISTURBED AREA DRAWING</u>
7.1 Drawing Requirements: (See Application Information Packet) See attached drawing	

8.	<u>PROJECT PHOTOGRAPHS</u>
8-1 Images: (See Application Information Packet) See attached Photo sheets	
8-2 Photo Orientation Map: (See Application Information Packet) See attached map	
8-3 Photo Documentation: (See Application Information Packet) See attached photo descriptions	

9.	<u>RELATED PROJECT INFORMATION</u>	
Department of Natural Resources None		
Administrative Cause #		Related Application(s) #
Early Coordination #		Utility Exemption #
Recommendation #		Violation #
Department of Environmental Management None		
Section 401 #		
Corps of Engineers None		
Public Notice #		Section 10 Application #
Section 404 Application #		

10.	<u>STATEMENT OF AFFIRMATION</u>
<p>I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is to the best of my knowledge and belief, true, accurate and complete, and that the property owner (s), and adjoining landowners have been notified of the activity in conformance with the provisions of 312 IAC 2-3-3. I further certify that I possess the authority to undertake the proposed or completed activities. I hereby grant to the Department of Natural Resources, the right to enter the above-described location to inspect the proposed or completed work.</p>	
<p>_____ Signature of Applicant or Authorized Agent (REQUIRED)</p>	
<p>_____ Date</p>	

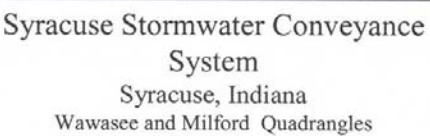
11.	<u>REGULATORY FEES</u>
11-1 Regulatory Fees Submitted: (See Application Information Packet)	
11-3 Payment Method: (See Application Information Packet)	

<u>REQUIREMENT FOR ADDITIONAL INFORMATION AND PERMITS</u>
<p>Application made to and approval granted by the Department of Natural Resources does not in any way relieve the applicant of the necessity of securing easements or other property rights, permits and approvals from affected property owners and other local, state, and federal agencies.</p>



Syracuse Stormwater Conveyance
System
Syracuse, Indiana
Wawasee and Milford Quadrangle

Applicant: Town of Syracuse
Agent: DLZ Indiana, LLC
Date: 07/26/2004
Scale: 1" = 2,400'



Applicant: Town of Syracuse
Agent: DLZ Indiana, LLC
Date: 05/17/2004
Scale: 1" = 2,400'

APPENDIX C

Detailed Costs

**Syracuse Stormwater Conveyance System
IDNR Lake and River Enhancement Program
Project Cost Summary**

Item	Unit	Amount	Unit Price	Total
BMP	LS	2	\$16,500	\$33,000
BMP Diversion Box	LS	2	\$2,000	\$4,000
Mobilization and Demobilization	LS	1	\$6,000	\$6,000
24" Pipe End Section	EACH	1	\$570.85	\$571
27" Pipe End Section	EACH	1	\$885.00	\$885
Manhole, C-4	EACH	4	\$1,782.33	\$7,129
Inlet, Type A	EACH	4	\$1,449.24	\$5,797
Inlet, Type F	EACH	12	\$1,844.61	\$22,135
Structure Removal	EACH	3	\$158.00	\$474
Pipe Removal	LFT	108	\$12.44	\$1,344
Concrete for cradles and abandoned pipe	CYS	5	\$300.00	\$1,500
Swale Grading	LFT	330	\$8.95	\$2,954
27" Pipe	LFT	301	\$40.00	\$12,040
12" Pipe	LFT	692	\$32.00	\$22,144
24" Pipe	LFT	1440	\$40.00	\$57,600
18" Pipe	LFT	81	\$36.00	\$2,916
6" Ductile Iron San. Pipe	LFT	50	\$43.00	\$2,150
Fernco Coupling	EACH	7	\$50	\$350
Geotextile	SYS	240	\$1.88	\$451
"B" Borrow	CYS	149	\$13.86	\$2,065
Sodding	SYS	240	\$5.00	\$1,200
Seeding	SYS	24,080	\$0.59	\$14,207
Tree Removal	EACH	2	\$500.00	\$1,000
4" Drain Tile	LFT	75	\$10.00	\$750
Straw Bales	LFT	64	\$6.09	\$390
Pavement Patching	SY	44	\$122.00	\$5,368
Drive Patching	SY	11	\$35.00	\$385
Slotted Drain	LFT	15	\$99.42	\$1,491
Traffic Maintenance	LS	1	\$2,500	\$2,500
Prairie Plantings	LS	1	\$500	\$500
Subtotal				\$213,296
Contingency	LS			\$21,329.61
Total				\$234,625.68

APPENDIX D

Progress Reporting



MEMORANDUM

To: Brian Redshaw, Syracuse Town Manager

Date: April 5, 2004

From: Michael E. Massonne, Project Manager

Subject: Syracuse Stormwater Conveyance System Design

Attached is a status report for the Syracuse Stormwater Conveyance System Design Project for the Potawatomi Heights Subdivision, Long Drive, and State Road 13 Kosciusko County, Indiana:

Tasks completed:

- Survey notice letters sent
- Field survey completed

Tasks underway:

- Preparation of permit documentation
- Processing field survey data
- Draft design preparation

Upcoming items:

- Draft design submittal
- Public meeting
- On-site meeting with BMP manufacturer

cc: Kent Tracy, DNR
Mike Massonne, DLZ
File

ENGINEERS • ARCHITECTS • SCIENTISTS • PLANNERS • SURVEYORS

36 S. Pennsylvania 360 Century Building Indianapolis Indiana 46204 Phone 317/633-4120 Fax 317/633-4177

With Offices Throughout The Midwest

www.dlz.com

MEMORANDUM

To: Brian Redshaw, Syracuse Town Manager

Date: May 7, 2004

From: Michael E. Massonne, Project Manager



Subject: Syracuse Stormwater Conveyance System Design

Attached is a status report for the Syracuse Stormwater Conveyance System Design Project for the Potawatomi Heights Subdivision, Long Drive, and State Road 13 Kosciusko County, Indiana:

Tasks completed:

- Survey notice letters sent
- Field survey completed
- Processing of field survey data
- Property Boundary overlay (Syracuse GIS effort Base Map)

Tasks underway:

- Design modeling and layout
- Preparation of Design and Construction documents
 - Draft plan completion date: May 19, 2004
 - Final plan completion date: June 7, 2004
- Preparation of permit documentation
 - IDNR Lakes Preservation Act (submission made after draft plans completed)
 - Corps 404 / 401 purview
- Preparation of bid documents
 - A draft of the bid documents has been completed
 - Final draft completion date: May 14, 2004
- Preparation of Design Report
 - Draft report underway
 - Final draft completion date: May 19, 2004

Upcoming items:

ENGINEERS

ARCHITECTS

SCIENTISTS

PLANNERS

SURVEYORS

36 S. Pennsylvania St. Suite 360 Century Bldg. Indianapolis, IN. 46204

PHONE: (317) 633-4120

FAX: (317) 633-4177

With Offices Throughout The Midwest

- Draft submittal
 - Proposed Date: May 20, 2004
- Public (neighborhood) meeting
 - Proposed Date: Week of May 23, 2004
- On-site meeting with BMP manufacturer
 - Proposed Date: Will correspond with public meeting date if possible

Other Items:

Construction occurring late summer early fall 2004. Specific construction dates are dependent upon environmental permitting requirements, funding availability and landowner agreements. cc: Kent

Tracy, DNR

Venus Harmeyer, DLZ

File

ENGINEERS

ARCHITECTS

SCIENTISTS

PLANNERS

SURVEYORS

36 S. Pennsylvania St. Suite 360 Century Bldg. Indianapolis, IN. 46204

PHONE: (317) 633-4120

FAX: (317) 633-4177

With Offices Throughout The Midwest

MEMORANDUM

To: Brian Redshaw, Syracuse Town Manager

Date: May 11, 2004

From: Michael E. Massonne, Project Manager



Subject: Syracuse Stormwater Conveyance System Design

Attached is a status report for the Syracuse Stormwater Conveyance System Design Project for the Potawatomi Heights Subdivision, Long Drive, and State Road 13 Kosciusko County, Indiana:

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 - Corps 404 / 401 purview
- Preparation of bid documents
 - A draft of the bid documents has been completed
 - Final draft completion (revised) date: May 17, 2004
- Preparation of Design Report
 - Draft report underway
 - Final draft completion date: May 19, 2004

ENGINEERS

ARCHITECTS

SCIENTISTS

PLANNERS

SURVEYORS

36 S. Pennsylvania St. Suite 360 Century Bldg. Indianapolis, IN. 46204

PHONE: (317) 633-4120

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Upcoming items:

- Draft submittal
 - Proposed Date: May 20, 2004
- Public (neighborhood) meeting
 - Proposed Date: Week of May 23, 2004
- On-site meeting with BMP manufacturer
 - Proposed Date: Will correspond with public meeting date if possible

Other Items:

Construction occurring late summer early fall 2004. Specific construction dates are dependent upon environmental permitting requirements, funding availability and landowner agreements.

Also, Lake and River Enhancement Program (IDNR) staff will be reviewing draft as well as final versions of the design project; this is a grant program requirement. cc: Kent Tracy, DNR
Venus Harmeyer, DLZ
File

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MEMORANDUM

Date: May 14, 2004
To: Brian Redshaw, Town Manager
From: Michael E. Massonne, Project Manager
Subject: Project Update

DLZ is in the process of completing the design for the Community Center and Potawatomi Heights Stormwater Conveyance Systems. This update is to serve as a means to report project progress to the Town Manager as well as members of the Syracuse Town Council.

DLZ continues to work toward the completion of the design project within the required scope of the Lake and River Enhancement Program and the agreement with the Town of Syracuse. Specific tasks of site survey, design layout and system modeling, environmental permitting, project easements and public information meeting are in various stages of completion or planning. The project continues to be on track for construction in 2004 pending the obtaining of environmental permits, construction easements, sufficient funding and a successful and responsible bid.

Site survey has been completed and is now allowing for system modeling and design layout. Draft project plans are in process with a proposed completion date of the week of May 16. The required design summary and project (bid) manual are currently in draft form being readied for draft submittal the week of May 16. Project permit applications have been prepared for submittal with draft plans to the Department of Natural Resources. Draft documents will be forwarded to the Town Manager and to IDNR Lake and River Enhancement staff as required by the Grant program. DLZ will work with IDNR staff to minimize as possible the review time required by IDNR for plan approval within the guidelines of the Grant program. DLZ will schedule and hold the public meeting utilizing the draft plans to introduce the proposed project to the affected property owners and work to gain easement for construction. As discussed at previous public and Council meetings it is understood that construction access and easements must be granted based solely on drainage improvement.

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While the physical design of the stormwater conveyance system can take a relatively short period, the time required by State and local agencies for plan review and approval can be more lengthy (60-90 days) due to legislated public notice periods and other program administrative functions beyond the control of the project owner and designer. DLZ continues to work with these agencies to minimize review times in an effort to move toward a project bid. It continues to be the recommendation of the designer to consider a late summer 2004 construction. This timeframe allows for full use of the Lake and Town's facilities during the main recreational season. DLZ will continue to affect the design to minimize disturbance and impacts to effected residents and offer experience to the Town for a successful construction.

Task Specific Report:

Tasks completed:

- Survey notice letters sent
- Field survey completed
- Processing of field survey data
- Property Boundary overlay (Syracuse GIS effort Base Map)

Tasks underway:

- Design modeling and layout
- Preparation of Design and Construction documents
 - Draft plan completion date: May 18, 2004
 - Final plan completion date: June, 2004
- Preparation of permit documentation
 - IDNR Lakes Preservation Act (submission made after draft plans completed)
 - Corps 404 / 401 purview
- Preparation of bid documents
 - A draft of the bid documents has been completed
 - Final draft completion date: May 18, 2004
- Preparation of Design Report
 - Draft report has been completed
 - Final draft completion date: May 18, 2004

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Upcoming items:

- Draft submittal
 - Proposed Date: May 20, 2004
- Public (neighborhood) meeting
 - Proposed Date: Week of June 6, 2004
- On-site meeting with BMP manufacturer
 - Proposed Date: Will correspond with public meeting date

If you have questions regarding this matter, please contact Mike Massonne at 633-4120 or electronically at mmassonne@dlz.com.

cc: Venus Harmeyer, DLZ

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